

R20 B.TECH EEE FIRST YEAR COURSE STRUCTURE**B.Tech. I Year I Semester**

S.No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	BS-1	A41002	Mathematics-I	3	1	0	4.0
2	BS-2	A41004	Applied Physics	3	1	0	4.0
3	BS-Lab-1	A41082	Physics Lab	0	0	3	1.5
4	H&S-1	A41001	English	2	0	0	2.0
5	H&S Lab-1	A41081	English Language Skills Lab (ELSL)	0	0	2	1.0
6	ES-1	A41501	Programming for Problem Solving-I	2	0	0	2.0
7	ES Lab-1	A41581	Programming for Problem Solving Lab-I	0	0	2	1.0
8	ES-2	A41301	Engineering Graphics & Modeling	1	0	3	2.5
Total				11	2	10	18

B.Tech. I Year II Semester

S.No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	BS-3	A42007	Mathematics-II	3	1	0	4.0
2	BS-4	A42009	Chemistry	3	1	0	4.0
3	BS-Lab-2	A42086	Chemistry Lab	0	0	3	1.5
4	ES-3	A42202	Basic Electrical Engineering	3	0	0	3.0
5	ES-Lab-2	A42282	Basic Electrical Engineering Lab	0	0	2	1.0
6	ES Lab-3	A42382	Engineering Workshop	0	1	3	2.5
7	H&S Lab-2	A42084	English Communication Skills Lab (ECSL)	0	0	2	1.0
8	ES-4	A42502	Programming for Problem Solving-II	2	0	0	2.0
9	ES-Lab-4	A42582	Programming for Problem Solving Lab-II	0	0	2	1.0
Total				11	3	12	20

R20 B.TECH EEE SECOND YEAR COURSE STRUCTURE**B. Tech. II Year I Semester**

S. No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	BS – 5	A43012	Complex Analysis & Fourier Transforms	3	0	0	3
2	H&S - 2	A43010	Professional Communication	2	0	0	2
3	ES – 5	A43401	Electronic Devices and Circuits	3	0	0	3
4	PC – 1	A43203	Network Analysis	3	0	0	3
5	PC – 2	A43204	Electro Magnetic Fields	3	0	0	3
6	PC – 3	A43205	Electrical Machines-I	4	0	0	4
7	PC Lab-1	A43283	Basic Simulation Tools Lab	0	0	2	1
8	PC Lab-2	A43284	Electrical Circuits Lab	0	0	2	1
9	MC – 1	A43MC1	Environmental Science	2	0	0	0
Total				20	0	4	20

B. Tech. II Year II Semester

S. No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	BS – 6	A44019	Numerical Methods and Partial Differential Equations	3	0	0	3
2	ES – 6	A44405	Switching Theory and Logic Design	3	0	0	3
3	PC – 4	A44207	Python for Electrical Engineers	3	0	0	3
4	PC – 5	A44208	Electrical Machines-II	3	0	0	3
5	PC – 6	A44209	Power Systems – I	3	0	0	3
6	PC – 7	A44210	Control Systems	3	0	0	3
7	PC Lab-3	A44285	Electrical Machines-I Lab	0	0	2	1
8	PC Lab-4	A44484	Electronic Devices and Circuits Lab	0	0	2	1
9	MC – 2	A44MC2	Gender Sensitization	2	0	0	0
Total				20	0	4	20

R20 B.TECH EEE THIRD YEAR COURSE STRUCTURE

B. Tech. III Year I Semester

S. No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	H&S – 3	A45021	Managerial Economics and Financial Analysis	3	0	0	3
2	PC – 8	A45211	Power Systems- II	3	0	0	3
3	PC – 9	A45212	Power Electronics	3	0	0	3
4	PC – 10	A45213	Microprocessors and Interfacing Devices	3	0	0	3
5	PE – 1	A45214 A45215 A45216	AI Techniques in Electrical Engineering/ Integrated Circuits and Applications/ Electrical Energy Conservation and Auditing	3	0	0	3
6	OE – 1		OPEN ELECTIVE – 1	3	0	0	3
7	PC Lab – 5	A45287	Electrical Machines-II Lab	0	0	2	1
8	PC Lab – 6	A45087	Advanced Communication Skills Lab	0	0	2	1
9	VAC - 1	A45TP1	Personality Development & Behavioral Skills	2	0	0	1
Total				20	0	4	21

B. Tech. III Year II Semester

S. No	Course Category	Course Code	Course Title	L	T	P	Credits
1	ES – 7	A46537	Essentials of Computer Networks	3	0	0	3
2	PC – 11	A46220	Computer Methods in Power Systems	3	0	0	3
3	PC – 12	A46221	Power Semiconductor Drives	3	0	0	3
4	PC – 13	A46222	Switch Gear and Protection	3	0	0	3
5	PE – 2	A46223 A46224 A46225	Modern Power Electronics/ Advanced Control Systems / System Design using Verilog HDL	3	0	0	3
6	OE – 2		OPEN ELECTIVE – 2	3	0	0	3
7	PC Lab – 7	A46288	Control Systems and Simulation Lab	0	0	2	1
8	PC Lab – 8	A46289	Power Electronics and Simulation Lab	0	0	2	1
9	VAC - 2	A46TP1	Quantitative Methods & Logical Reasoning	2	0	0	1
Total				20	0	4	21

R20 B.TECH EEE FOURTH YEAR COURSE STRUCTURE

B. Tech. IV Year I Semester

S. No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	PC -14	A47228	Electrical Measurements & Instrumentation	3	0	0	3
2	PC -15	A47229	Power Systems Operation and Control	3	0	0	3
3	PE – 3	A47230 A47231 A47232	Electric Vehicles/ Power Quality and FACTS/ Embedded Systems & IOT	3	0	0	3
4	PE – 4	A47233 A47234 A47235	Advanced Control of Electric Drives/ Programmable Logic Controllers & SCADA/ Smart Grids	3	0	0	3
5	OE-3		OPEN ELECTIVE – 3	3	0	0	3
6	PC Lab - 9	A47290	Microprocessors and Interfacing Lab	0	0	2	1
7	PC Lab - 10	A47291	Electrical Measurements Lab	0	0	2	1
8	PW-1	A472P1	Industry Oriented Mini Project	0	0	0	3
Total				15	0	4	20

B. Tech. EEE IV Year II Semester

S. No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	PC -16	A48238	Utilization of Electrical Energy	3	0	0	3
2	PC -17	A48239	Renewable Energy and Energy Storage Technologies-	3	0	0	3
3	TS	A482TS	Technical Seminar	0	2	0	2
4	CVV	A482CV	Comprehensive Viva-Voce	0	0	0	2
5	PW-2	A482P2	Major Project	0	0	20	10
Total				6	2	20	20

R20 COURSE STRUCTURE (for FAST TRACK)

B. Tech. III Year I Semester

S. No	Course Category	Course Code	Course Title	L	T	P	Credits
1	H&S – 3	A45021	Managerial Economics and Financial Analysis	3	0	0	3
2	PC – 8	A45211	Power Systems- II	3	0	0	3
3	PC – 9	A45212	Power Electronics	3	0	0	3
4	PC – 10	A45213	Microprocessors and Interfacing Devices	3	0	0	3
5	PE – 1	A45214 A45215 A45216	AI Techniques in Electrical Engineering / Integrated Circuits and Applications/ Electrical Energy Conservation and Auditing	3	0	0	3
6	OE – 1		OPEN ELECTIVE – 1	3	0	0	3
7	PC Lab – 5	A45287	Electrical Machines-II Lab	0	0	2	1
8	PC Lab – 6	A45087	Advanced Communication Skills Lab	0	0	2	1
9	VAC – 1	A45TP1	Personality Development & Behavioral Skills	2	0	0	1
Total				20	0	4	21

B. Tech. III Year II Semester

S.No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	ES – 7	A46537	Essentials of Computer Networks	3	0	0	3
2	PC – 11	A46220	Computer Methods in Power Systems	3	0	0	3
3	PC – 12	A46221	Power Semiconductor Drives	3	0	0	3
4	PC – 13	A46222	Switch Gear and Protection	3	0	0	3
5	PE – 2	A46223 A46224 A46225	Modern Power Electronics/ Advanced Control Systems/ System Design using Verilog HDL	3	0	0	3
6	OE – 2		OPEN ELECTIVE – 2	3	0	0	3
7	PC Lab – 7	A46288	Control Systems and Simulation Lab	0	0	2	1
8	PC Lab – 8	A46289	Power Electronics and Simulation Lab	0	0	2	1
9	VAC – 2	A46TP1	Quantitative Methods & Logical Reasoning	2	0	0	1
10	PC -16	A48238	Utilization of Electrical Energy	3	0	0	3
Total				23	0	4	24

R20 COURSE STRUCTURE (for FAST TRACK)

B. Tech. IV Year I Semester

S.No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	PC -14	A47228	Electrical Measurements & Instrumentation	3	0	0	3
2	PC -15	A47229	Power Systems Operation and Control	3	0	0	3
3	PE – 3	A47230 A47231 A47232	Electric Vehicles/ Power Quality and FACTS/ Embedded Systems & IOT	3	0	0	3
4	PE – 4	A47233 A47234 A47235	Advanced Control of Electric Drives/ Programmable Logic Controllers & SCADA/ Smart Grids	3	0	0	3
5	OE-3		OPEN ELECTIVE – 3	3	0	0	3
6	PC Lab - 9	A47290	Microprocessors and Interfacing Lab	0	0	2	1
7	PC Lab - 10	A47291	Electrical Measurements Lab	0	0	2	1
8	PW-1	A472P1	Industry Oriented Mini Project	0	0	0	3
9	PC – 17	A48239	Renewable Energy and Energy Storage Technologies	3	0	0	3
Total				18	0	4	23

B. Tech. IV Year II Semester

S.No.	Course Category	Course Code	Course Title	L	T	P	Credits
1	TS	A482TS	Technical Seminar	0	2	0	2
2	CVV	A482CV	Comprehensive Viva-Voce	0	0	0	2
3	PW-2	A482P2	Major Project	0	0	20	10
Total				0	2	20	14